

Open Government Initiatives: Challenges of Citizen Participation

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Abstract

This paper reviews the current state of open government activities at the national level and suggests approaches to advance public discourse and participation. Because the goal of open government is to critically inform citizens about issues and substantively engage with policymakers, public managers must advance transparency efforts beyond those focused upon data information technologies. © 2012 by the Association for Public Policy Analysis and Management.

The republican principle demands that the deliberate sense of the community should govern the conduct of those to whom they entrust the management of their affairs; but it does not require an unqualified complaisance to every sudden breeze of passion, or to every transient impulse which the people may receive from the arts of men, who flatter their prejudices to betray their interests [. . .] it is the duty of the persons whom they have appointed to be the guardians of those interests, to withstand the temporary delusion, in order to give them time and opportunity for more cool and sedate reflection (Hamilton et al., 2008, Federalist No. 71, p. 1788).

INTRODUCTION

Much of the work in open government, both in its implementation and research, has emphasized data and the information and communications technologies supporting their access, interoperability, and usability. This data-driven focus has not been proven to significantly increase citizen understanding of the complexities of issues and policies or their participation in relevant policy deliberations. If the primary goal of open government is to engage citizens, then current initiatives must be re-evaluated and new approaches explored—shifting beyond data delivery. Releasing volumes of data on a Web site without background on why and how it is collected, how it is organized, and its intended use, leaves citizens with herculean tasks of determining its relevance and reliability.

This paper suggests how to achieve the primary goal of open government, which is to ensure that the American public has access to objective, relevant, and reliable information to help them arrive at informed judgments about issues and the government's role in tackling these problems. This paper also summarizes recent activities undertaken at the national level to advance open government directives, principles, and plans.

CURRENT STATE OF OPEN GOVERNMENT INITIATIVES

Open government is widely understood as the leveraging of information technologies to generate participatory, collaborative dialogue between policymakers and citizens. The most recent open government movement emerged from the adoption of e-government in the mid-1990s. The E-Government Act of 2002 pushed for the establishment of initiatives, though policies such as the Freedom of Information Act of 1966 (FOIA) and the Paperwork Reduction Act of 1995 also were formative (McDermott, 2010, pp. 407–408; Gant & Turner-Lee, 2011, p. 16). Application of e-government was focused on disseminating information and delivering services through the Internet (Dawes, 2009, p. 258). Today, public policy mandates the transparency of all levels of government information, and transactions are largely available online (Gant & Turner-Lee, 2011, p. 13).

Overall, e-government generated a utilitarian approach toward technology, as exemplified by the widespread publication of *digitized* data (Chun et al., 2010, p. 1). Similarly, research focused on the use of information technology, including accessibility issues, with minimal attention placed on how citizen engagement and public policy could advance the goals of e-government (Dawes, 2009, p. 258; Rose & Grant, 2010). Technology dominated the evolution of directives, creating a data-driven, relatively homogeneous approach to citizen–government interactions.

As technology has become more advanced, the utilitarian and unidirectional model of e-government has become limited, giving rise to new initiatives, which have focused on enhancing proactive citizen participation and collaboration, as well as openness and transparency (McDermott, 2010, p. 410). The application of technology in more recent initiatives is directed toward collaboration between government and citizens. The rise of Web 2.0 technologies and social media, which facilitate social interaction, has accelerated the impetus for the government to fulfill the goals of transparency, collaboration, and civic participation (Bertot et al., 2010).

At the federal level, the Open Government Directive (issued by President Obama's administration in January 2009) and the subsequent progress report issued in December 2009 have served as further catalysts by attempting to better define the expected outcomes of open government and establishing specific protocols for involving executive agencies. The Directive established three goals: transparency, participation, and collaboration and charged federal agencies to implement several steps to meet these goals (Orszag, 2009, p. 1). The memorandum instructed agencies to “publish government information, . . . improve the quality of government information, . . . create and institutionalize a culture of open government, [and] . . . create an enabling policy framework for open government” (Orszag, 2009, pp. 2–6).

The timing of the Directive and the discretion afforded to executive agencies in complying with its provisions may have inadvertently limited the creation of new ways to make the government more transparent, collaborative, and participatory. The Directive was issued on the first day of President Obama's Administration and agencies had less than six months to comply with its provisions. This left heads of agencies, some with little or no expertise in this area, relatively little time to consider how best to meet the charges. Of the four charges noted in the Directive, two focus specifically upon the publication of data and the management of information technology. The other two are purposefully broad instructing agencies to create policies and support new cultures to support open government principles (Orszag, 2009, pp. 2–6). Because these broad directives were not accompanied by specific guidance, agencies looked to existing data and information, which did not contain confidentiality or privacy risks, as the focus of their compliance efforts. This focus seemed to inhibit, perhaps unintentionally, consideration of innovative ways to use data and information to enhance public participation.

The progress report on the Directive, which was issued nine months after its publication, added additional nuances to the original charges. It placed the citizen as the focal point of the open government initiative: For transparency, “government should provide citizens with information about what their government is doing so that government can be held accountable”; for participation, “government should actively solicit expertise from outside Washington so that it makes policies with the benefit of the best information”; and for collaboration, “government officials should work together with one another and with citizens as part of doing their job of solving national problems” (Executive Office of the President, 2009, p. 1). Again, there was virtually no guidance on how agencies could accomplish these directives. By making the citizen central to the initiatives, however, the Obama Administration linked openness and accountability to citizen empowerment.

Executive Agency Efforts

The lack of specific guidance seems to have shaped executive agency efforts to implement the Directive. Among executive agencies, open government Web sites, for example, seem oriented toward providing government data and accelerating freedom of information efforts. Arguably, this orientation has limited citizen engagement and the overall scope of open government. Government Web sites fall into two main groupings: those that collect data from across the executive agencies and then offer those data in a central site and those that are developed and maintained within individual agencies. An overview and assessment of these Web sites is offered below.

Government-Wide Web Sites

Common features of these sites are presentation of data and solicitation of feedback, which agencies claim serve as evidence of compliance with the goal of increasing public participation. However, the sites often do not provide guidance to the public on how to assess the relevance of the data and examine its feasibility to formulate positions before offering feedback. For example, USASpending.gov provides a rich amount of transactional data for federal spending, but it does not supply information about how the spending is used or how it affects state- or local-level capacity. These Web sites also use technical jargon assuming that the public understands government terminology, acronyms, and legal citations.

The proliferation of government data open to the public through executive agency sites, particularly those that offer extensive compilations, also can be overwhelming and confusing. For instance, Recovery.gov claims to offer users information about how the American Recovery and Reinvestment Act (2009) funds are being applied. Its extensive use of technical jargon and lack of data documentation, however, render the site of limited use. Some data appear on multiple sites. Data about Freedom of Information Act (1966), for example, provided by FOIA.gov can be found on individual agency Web sites. While duplication appears reasonable, it may cause confusion if the data are not consistent across sites (e.g., formats, updating, and documentation). Table 1 describes the major government-wide Web sites resulting from the Obama Administration’s focus on open government.

The table highlights the breadth of information provided via these government-wide Web sites. It also demonstrates varying levels of citizen engagement and linkages to other government Web sites. Among these Web sites, Regulations.gov is perhaps the most advanced in terms of gathering public feedback while also providing supporting documentation to the user. The Web site provides overviews of proposed regulations with supplementary information, and it also provides a platform

Table 1. Brief description of government-wide Web sites.

Web sites	Content	Lead responsible agency	Duplication (data appear on individual agency web sites)
Data.gov	Portal of government data sets. Data available in raw form, as applications, or geo-spatial data. Specialized topic forums available as well.	Office of Management and Budget/Executive Office of the President	Data often linked to agency Web sites, but difficult to find same data on agency Web sites.
FOIA.gov	Provides data and reports about FOIA ^a requests by federal agency level and fiscal year. Does not provide detail about types of requests or how quickly FOIA requests were processed.	U.S. Department of Justice	FOIA.gov data are duplicated on agency Web sites.
ITDashboard.gov	Offers data regarding federal investments in information technology.	Office of Management and Budget/Executive Office of the President	Data difficult to find on agency Web sites.
Recovery.gov	Enables users to track use of ARRA ^b funding by maps and data by agency, state/local/territory level, and type of funding (e.g., contract, grant).	Recovery Accountability and Transparency Board (established by ARRA; consists of 12 Inspectors General [IG]. President Obama appointed two of these IGs and also named Chairman, Earl Devaney).	Agency Web sites have different information than Recovery.gov; alignment between data not clear; agency Web sites difficult to navigate.
USASpending.gov	Searchable database of federal award spending (e.g., contracts, direct payments).	Office of Management and Budget/Executive Office of the President	Data difficult to find on agency Web sites.
USA.Gov	Portal to government Web sites by topic (e.g., jobs, health, travel) and agencies.	U.S. General Services Administration's Office of Citizen Services and Innovative Technologies	Information consists of links to agency Web sites.
Regulations.gov	Provides information about regulations, including proposed rules and notices issued by federal agencies, and allows for users to submit comments and read others' comments.	eRulemaking Program (established by E-Government Act of 2002) ^c and the U.S. Environmental Protection Agency	Some information duplicated on agency Web sites.

^aFreedom of Information Act (1966).^bAmerican Recovery and Reinvestment Act (2009).^cE-Government Act (2002).*Source:* Compiled by authors from government-wide and agency-specific Web sites.

for public commentary. Generally, however, the Web sites are focused on delivering data or information that is specific to the parent agency with little to no attempt to either connect that data to other government sites or to engage the public. Although the availability of data is certainly useful, these efforts seem to present, overall, a superficial and uncoordinated adherence to the Obama Administration's Open Government Directive. Greater citizen empowerment could be achieved through more concerted approaches that consider and provide contextual information as well.

Individual Agency Web sites

In addition to the government-wide Web sites, individual agencies have strived to meet the goals of the Open Government Directive by sponsoring more than 300 initiatives. Some agencies, such as NASA, have designed their initiatives to encourage the public to explore and collaborate on government projects (Gant & Turner-Lee, 2011, pp. 19–20). Other agencies also have employed social media platforms to engage the public. For instance, the Transportation Security Administration has developed mobile device applications, and the U.S. Patent and Trademark Office has developed a citizen-focused project, Peer to Patent, to enable public assessments of pending patent claims (Bertot et al., 2010, p. 4).

A review of these individual sites reveals that agencies have attempted to honor the three goals set forth in President Obama's Directive: transparency, collaboration, and participation. Table 2 contains a selection of Web sites as illustrative of agency efforts.

Although these examples may seemingly reflect principles of transparency, collaboration, and participation, the focus tends to be on providing information to or collecting information from citizens. Agency-provided information is primarily in the form of facts or statistics regarding programs or services, and citizen-provided information consists of feedback or comments on agency policies and programs. However, the types of informational exchanges seem highly specialized. The three transparency examples, Healthcare.gov, FDA Track, and Reginfo.gov supply a rich amount of information regarding services, programs, and regulations. The delivery of this information is unidirectional, with limited explanatory documentation and extensive use of technical jargon, perhaps facilitating navigation among users with specialized knowledge, but restricting public engagement. FDA Track, for example, enables users to follow the progress of FDA initiatives and offers progress reports on the FDA's implementation of the Affordable Care Act, such as improving women's health. It does not explain, however, how or why its work upholds or relates this goal to broader public health issues.

Among this sample of Web sites, the collaboration and participation exemplars have encouraged and targeted citizen engagement. These initiatives provide interactive ways for the public to share ideas and opinions, or engage with data. Perhaps this focus can be attributed, however, to the nature of the Web sites' purposes. In particular, the collaboration exemplars' Web sites identify solutions through public collaboration. Indeed, Global Pulse 2010 describes the value of this initiative as "a unique opportunity to influence a global conversation that built partnerships across borders, strengthened understanding among cultures, and identified innovative solutions to the most pressing social issues of our time" (U.S. Department of State, 2010). Similarly, VAI2 collected thousands of innovative proposals to address service delivery and technology issues, from which the Veterans Administration selected hundreds for funding. NASA Citizen, through its various portals, seeks public answers to thousands of astronomical projects. The exemplars aim to engage the public through feedback tools designed to share ideas and obtain a range of recommendations rather than limiting feedback to a predetermined set of solutions.

Table 2. Examples of agency efforts for Open Government Directive.

Transparency	Collaboration	Participation
Executive Office of the President, Office of Information and Regulatory Affairs, Office of Management and Budget, (Reginfo.gov)—users can obtain information about regulatory plans at various stages in the rulemaking process.	National Aeronautic and Space Administration (NASA Citizen Scientist)—users can collaborate on NASA data and projects.	U.S. Department of Defense (Open Defense)—users can submit feedback on the open government plan via live virtual roundtables, comment forms, and an Ideascale tool. ^a
U.S. Department of Health and Human Services (HealthCare.gov)—users can find information and compare services related to health insurance and health care.	U.S. Department of State, U.S. Agency for International Development (Global Pulse 2010)—users participated in three-day interactive online discussions regarding different topics, such as global health and sustainability.	U.S. Department of Energy (Open Energy Information, OpenEI)—users can interact with government data and upload their own data via Wiki-based platform.
U.S. Department of Health and Human Services, Food and Drug Administration (FDA Track)—users can obtain data on program performance of FDA offices and programs.	Veterans' Administration (VAi2)—users submitted ideas to launch improvements in veteran health-care services and employment services.	U.S. Department of Transportation (Regulation Room)—provides the public with the opportunity to track proposed regulations and offer ideas to the agency on how to improve services.

^aIdeascale is a proprietary software application using *crowdsourcing* principles to determine consensus on ideas. Users may submit ideas to a Web site then vote on those and other submitted ideas. The most popular voted ideas rise to the top. Agencies using the software also can offer comments during the process.

Source: Compiled by authors from government-wide and agency-specific Web sites.

The exemplars reflect attempts to move beyond simply reporting data and information, though it seems to be in nascent development. OpenEI, for instance, provides users with access to thousands of data sets provided by federal and state agencies, universities, and foreign governments. Although OpenEI provides explanatory information on major energy issues, such as funding and policy, the data sets generally do not include such information to frame users' understanding of relevant policy issues and their implications. Similarly, despite the depth of public engagement facilitated by the collaboration examples, these initiatives do not convey a context for citizens to understand pertinent policies. For example, NASA Citizen Scientist gives citizens the opportunity to engage with its projects, which may be its core objective, but it has not elevated this engagement to explain the role these projects play within the policymaking process.

ASSESSMENT OF OPEN GOVERNMENT EFFORTS

Researchers and the executive agencies themselves have assessed efforts claiming to advance participation, collaboration, and transparency goals. These assessments

suggest that while government agencies have significantly invested resources to meeting these goals, it remains unclear how these efforts have increased citizen participation. As the Knight Commission (2009) observes, "Information alone does not guarantee positive outcomes," (p. 12) and government information lacks context, hindering citizen engagement. A discussion of selected assessment efforts follows.

The U.S. Office of Management and Budget created a formal evaluation system in which 29 executive agencies rank themselves in terms of their success in meeting the Open Government Directive.¹ There are three levels in the ranking: "meets expectations," "progress towards expectations," and "fails to meet expectations" (Executive Office of the President, 2011). Of the 29 agencies, 27 (the two remaining are the Office of Personnel Management and the Council on Environmental Quality) report that they have produced three high-level data sets and posted them to Data.gov.² With respect to the Directives, all but one (National Science Foundation) claim they are meeting expectations for citizen participation. Twenty-two report that they are meeting expectations for collaboration, and only 18 report that they are meeting expectations to achieve transparency. In addition, all agencies report that they have met public consultation expectations.

According to this self-evaluation, it appears that agencies believe they are relatively successful in meeting expectations regarding public participation and consultation. From some of the agencies' perspectives, it may be that these open government efforts have succeeded in generating the sort of transparency, participation, and collaboration that is amenable to agency goals. Indeed, some agencies may prefer to steer their efforts to limit public scrutiny while also adhering, at least on some level, to open government standards. Overall, the self-evaluations also may be driven by resource constraints, organizational cultures, or other challenges, which create disincentives to advance open government efforts.

Scholars have identified the challenges and shortcomings that have affected open government efforts in general. Several scholars have noted that the array of open government and transparency requirements and standards have hindered implementation (Bertot et al., 2010; Chang & Kannan, 2008; Ginsberg, 2011). Napoli and Karaganis (2010), for example, found that transparency and access standards were not consistently applied within federal communications policymaking (pp. 384–391). This lack of consistency may inhibit efforts for citizen engagement, perhaps creating divergent or conflicting levels of information.

Other researchers point out that public managers face ongoing challenges of meeting demand for open government constrained by financial and human resources. Agency staff may lack the knowledge and skills necessary to repurpose data that support internal operations to that which educate the public about those operations (Dawes, 2010, p. 380). Several researchers identify potential implications of misinterpretation and manipulation of data for open government initiatives (Dawes, 2010, p. 378). These issues suggest that initiatives continue to face challenges not only of ensuring public access to data, but also of demonstrating its relevance to public inquiries and discourse (Dawes, 2010; Ginsberg, 2011; Meijer, 2009).

Agencies' capacity to utilize technology influences citizen engagement. Some researchers have found that the processing and incorporation of citizen input through

¹ These 29 agencies include each of the 15 executive departments, various offices within the Executive Office of the President, Environmental Protection Agency, National Science Foundation, National Aeronautics and Space Administration, Nuclear Regulatory Committee, Office of Regulatory Reform, Office of Personnel Management, General Services Administration, Agency for International Development, Small Business Administration, and the Social Security Administration.

² Transparency is defined in the open government scorecard as whether the open government plan fulfills the requirements for opening the doors and data of the agency.

open government projects have presented challenges to agencies. Government–citizen interactions via social media lack established policies to guide the application of technology in open government projects (Bertot et al., 2010, pp. 6–7). Similarly, others suggest the need for enhanced feedback mechanisms between agencies and users (Dawes & Helbig, 2010). Scholars also have noted that while the government utilizes technology tools, it has not been able to harness these tools to manage and engage citizen participation (Bertot et al., 2010; Dawes, 2009; Dawes & Helbig, 2010; Tapscott, Williams, & Herman, 2008). Meijer and Thaens (2010) argue that while Web 2.0 technologies have the potential to advance open government goals, the successful exploitation of the power of these technologies rests upon how well they align with, and support an organization’s strategic and operational goals. They caution against succumbing to the allure of adopting these technologies wholesale, a *one-size-fits-all* approach, because it fails to recognize the unique challenges open government directives pose to specific agencies (pp. 113, 120).

Research has revealed that public managers must rethink current practices and consider ways to transform data-dominated open government efforts to ones offering information and analysis that build a context for how and why data are relevant.

The following sections suggest how public managers might consider tackling these questions. The first section will discuss the feasibility of adapting an analytic framework for creating contexts about public policy problems. The second section will outline a research agenda aimed at understanding the nature and context of information that would best assist citizens to engage with their government in an informed way.

ADAPTING AN ANALYTIC FRAMEWORK TO INFORM CITIZENS

Although federal agencies have been expected to integrate open government principles into their operations, procedures, and governance structures, the Executive Office of the President has offered no clear guidance on how to achieve this (Gant & Turner-Lee, 2011, pp. 19, 26–27). As a result, agencies have developed disparate approaches to implementation, which raises questions about the extent transparency has been achieved (Ginsberg, 2011, p. 31). The Directive generated a data-driven process of open government without considering the purpose for open government. As government agencies posted data on the Internet, there seemed to be little thought given to questions such as why did agencies collect these data, how are the data used within the agency, of what relevance are these data to policy deliberations, of what relevance are the data to informing citizens about public policies, how are policymakers going to apply this information, and are the limitations of these data easily understood?

Applying analytic methods in creating content to enhance civic engagement is not the panacea that will address all of the shortcomings in open government efforts. It may, however, result in rigorous selection of relevant content, a clear revelation of the content’s purpose and a logical framework in which the public user can navigate.

Through the years of its development, the discipline of policy analysis has focused upon developing analysts who could identify root causes of policy problems; assess the relevance and validity of data, research, and information created and collected to better understand the problem; offer options for how these problems might be mitigated; and offer insights into the potential advantages and disadvantages of these various options.³ Tapping into this expertise, and applying the skill sets of

³ Policy analysis evolved after World War II as an interdisciplinary field of practice and has been formally recognized through degree-granting programs in a number of universities, with an early concentration of programs established in the 1970s. The Association of Public Policy Analysis and Management (APPAM) was founded in 1979.

Table 3. Analytical framework.

Elements of policy analysis	Skill set of policy analysts
Define public policy problems.	<ul style="list-style-type: none"> • Identify and communicate causes. • Determine answers to critical questions.
Substantiate the problem.	<ul style="list-style-type: none"> • Determine reliability, relevance, and authoritativeness of data sources.
Develop options to address the problems.	<ul style="list-style-type: none"> • Formulate options on basis of research, analysis, and different criteria.
Prepare nonpartisan analysis.	<ul style="list-style-type: none"> • Produce analysis based on facts and data. • Approach from analytical, objective perspective rather than advocacy.

those who possess it, could provide public managers with a ready resource for developing contexts that could be used to help the public think about problems, their consequences, and determine what might be reasonable approaches to solving them.

Policy analysts populate executive and legislative agencies. In the executive agencies they can be found in policy, planning, and evaluation offices; in the legislative branch, policy analysts work in the Government Accountability Office, the Congressional Research Services and the Congressional Budget Office, and in congressional committees. These resources offer a further capacity within government that could enhance open government efforts.

The skill sets of policy analysts, which include assessment of data and evaluation of policy options, may be particularly suited to formulating contextual frameworks for open government initiatives. To illustrate how this approach might be implemented, executive agencies could use the elements of basic policy analysis to create the context for data and information. Each of these elements, if presented to the public, has the potential of better informing citizens about the nature and scope of public policy problems. Table 3 contains a brief description of these elements and what they can offer follows.

This framework may not be reasonable or feasible to use for every public policy or issue, but it might be worthwhile for those issues that are complex, have broad constituency bases, and no agreement on how to address them. Agencies would offer the general public an opportunity to learn about complex problems and the public could be exposed to information that would better prepare them to formulate positions on issues and to participate in government deliberations.

An example illustrating how content would benefit from an analytic approach is a data set from the Substance Abuse and Mental Health Services Administration (SAMHSA) (U.S. Department of Health and Human Services, 2011), which presents state public health prevention activities funded through grants distributed under the Affordable Care Act. The data set lists individual states and 14 categories of prevention activities. For each state, a check mark indicates the activities for which it received funds. This is the extent of the information offered to visitors. While the data set contains useful information, it does not describe the grants, their amount, their purpose, how they will be used, who will benefit, how their impact will be evaluated, their funding history, nor does it explain how they comport with other federal and state public health efforts. The absence of placing data into this type of context deprives the public of achieving a broader understanding of the nature of the grants. Applying the analytical framework, a policy analyst could, for example, produce an objective analysis of how these grants are used for research or service delivery and how they relate to the Affordable Care Act. This contextual information allows citizens to assess the impact of some health reform efforts at state levels.

RESEARCH

As the federal government struggles to improve citizen access to and participation in government deliberations, the conduct of specific research aimed at these outcomes could help public managers decide how best to design and evaluate relevant efforts.

This section presents a possible research agenda for public managers and policy analysts and builds upon existing research. Each subsection provides the purpose of the research, a selection of research already published, and suggestions for what might be needed.

Purpose—To Study the Purpose for Soliciting Input from Citizens and Evaluate the Effectiveness of These Methods in Collecting and Incorporating This Input into Policy Deliberations

Current research indicates that government seems to have limited capacity or understanding of this arena. Bertot et al. (2010) identify the lack of tools and frameworks to manage social media interaction with stakeholders and constituents (pp. 6–7). Other research has determined that governments lack the capacity to manage participation and collaboration at a mass scale (Tapscott, Williams, & Herman, 2008, p. 3). In terms of evaluation, scholars have suggested that agencies should focus on indicators such as levels of citizen engagement and user needs, and gather feedback on enhancing data tools (Chang & Kannan, 2008, p. 7; Dawes & Helbig, 2010).

Future research may expand understanding of this arena through different methodological approaches, such as pilot studies or program evaluations. Areas that could be explored include best practices to address citizen engagement and determining the success of different formats in achieving citizen understanding of policy issues. Researchers could also study the feasibility of using an analytic framework, as suggested above, for conveying information to the public to educate them about policy problems.

Purpose—To Better Describe the Nature and Scope of Public Demand for Information and the Public's Expectations for Transparency

Research studies have determined that the government faces the challenge of providing information to the public and managing internal objectives and structures. According to Ginsberg (2011), while agencies are releasing data to meet open government standards, it is not clear that this movement is increasing government transparency (p. 28). Government agencies face capacity and compliance challenges that have influenced their ability to meet public demand and expectations. Meijer (2009) found that providing immediate access to timely data prompted the public's expectation that data be regularly refreshed and that missing information be included. This research highlights tensions between public demand for large data sets on the one hand, and the limitations of government structure and capacity to meet this demand on the other hand (Dawes, 2010, pp. 377–378). A similar tension is evident between the goals of providing useful data and complying with confidentiality standards (Dawes, 2010, pp. 377–378). A series of case studies demonstrated the varied use of government data among stakeholders, but these stakeholders shared a demand for accuracy, timeliness, and consistency (Dawes & Helbig, 2010).

The public's use and understanding of information should be examined in a more systematic way. New research could study how citizens interact with information, including how they assess the quality and importance of information. Researchers may also evaluate the consequences on the public's perceptions of operations and policies of focusing open government initiatives on data. Other useful research may

identify the nature of data and information collected by executive agencies and determine the gap between supply and demand.

Purpose—To Enhance or Develop Open Government Policies Across Agencies, Organizations, and Levels of Government

The literature reflects some disagreement about whether government should centralize or decentralize open government policies. Some researchers have argued that comprehensive, crosscutting policies could generate more concerted and uniform initiatives to uphold open government principles. Ginsberg (2011) suggests the need for establishing uniform criteria for agencies to fulfill to meet Open Government Directive (p. 31). Observers also identified the need for establishing comprehensive policies for government use of social media and other technologies (Bertot et al., 2010, p. 7). Other researchers similarly suggest more integrated approaches to technology use and the development of an inventory of common open government policy issues to share resources and solutions (Chang & Kannan, 2008, p. 7; Tapscott, Williams, & Herman, 2008, p. 16). In contrast, Robinson et al. (2009) discuss how full compliance and coordination with government-wide policy requirements present challenges for federal Web sites and individual agencies (pp. 162–163). Some researchers also have suggested that the government should allow third party, private entities to play larger roles in the delivery of data and information (Robinson et al., 2009, p. 161; Tapscott, Williams, & Herman, 2008, p. 16).

Future research may provide analysis and suggest options on how to best manage and implement open government policies. Topics of particular utility could include determining the advantages and disadvantages of collecting large data sets into centralized sites; identifying and analyzing barriers, benefits, and costs of current approaches to data collection; and examining evaluation techniques that would determine the appropriate balance between centralized and decentralized strategies. Researchers may also investigate how public managers make decisions about the type of data and information supplied for open government or how agencies determine which internal units will be responsible for these initiatives.

Purpose—To Identify and Evaluate Formats and Venues Most Appropriate for Providing Information That Can Be Widely Available and Easy to Obtain

A consistent finding within current research is that executive agencies have developed a limited understanding of user needs. Thus, citizens' access to information largely remains a challenge. Researchers have identified that a tension exists between providing comprehensive data sets and meeting the needs of citizens who lack background knowledge, suggesting that public managers must consider the knowledge of users and prepare data accordingly (Dawes, 2010, p. 378; Dawes, Pardo, & Cresswell, 2004, p. 17). With the Open Government Directive, agencies may have assumed that the public already understood how to evaluate information and form conclusions (Ginsberg, 2011, p. 29). Other researchers have identified the need to ensure universal accessibility and curb the potential dominance of organized interest groups through citizen engagement (Chang & Kannan, 2008, p. 18; Tapscott, Williams, & Herman, 2008, p. 15).

Researchers have identified how to meet user needs to advance Open Government Directives. Dawes and Helbig (2010), for example, recommend that evaluation could produce information that meets diverse user needs and study the benefits of these efforts (para. 38). We suggest that future research also could explore other questions focusing on policy analysis. We have proposed a policy analysis framework as a possible strategy. Researchers could determine the implications, successes, and

challenges of this approach and study methods of implementation. With the ongoing development of open government, researchers could also examine efforts to date, perhaps evaluating how agency managers and analysts have shaped these initiatives and how agencies have determined what data to procure. Researchers also could identify inherent government responsibilities for educating the public and the consequences of sharing these responsibilities outside government. In addition, new research could contribute a better understanding of how nongovernmental entities educate citizens about public policy problems.

Given the diversity of open government initiatives, the amount of human and financial resources, and the work remaining to achieve citizen participation, a more thoughtful, organized approach to research is needed. To help formulate this research, two possible approaches are offered. First, the President could establish a bi-partisan commission or task force to review the progress of open government initiatives and to suggest how best to advance its principles. The commission could provide a government-wide perspective on knowns and unknowns, and how best we might fill this knowledge gap. The second approach would be to solicit the assistance of the National Academy of Public Administration to construct a possible research agenda. The Academy could focus on similar objectives as those suggested for a presidential commission, but also examine how to assist the public in learning about public policy and how to participate effectively in its review.

CONCLUDING REMARKS

Although agencies have significantly invested financial and human resources to the open government movement, it remains unclear how these investments increase citizen participation. By focusing efforts on data collection, innovations aimed at enhancing citizen engagement have been delayed. If the endgame of open government is to assist the public in its understanding of the nature and complexity of policies, and with that understanding to inform policy decisions, then open government efforts have fallen short. Shifting emphasis to explore how policy analysts can promote better public reflection on pressing issues can help fulfill the promise open government holds.

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